

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
21.05.2003 Bulletin 2003/21

(51) Int Cl.7: **H04B 1/707**

(43) Date of publication A2:
07.02.2001 Bulletin 2001/06

(21) Application number: **00305881.5**

(22) Date of filing: **12.07.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventors:
• **Kim, Eung-sun,**
Samsung Adv. Inst. of Technology
Yongin-city, Kyungki-do (KR)
• **Chun, Ji-yong, Samsung Keyin Telecom**
Seocho-gu 137-062 Seoul (KR)

(30) Priority: **13.07.1999 KR 9928205**

(71) Applicant: **SAMSUNG ELECTRONICS CO., LTD.**
Suwon-City, Kyungki-do (KR)

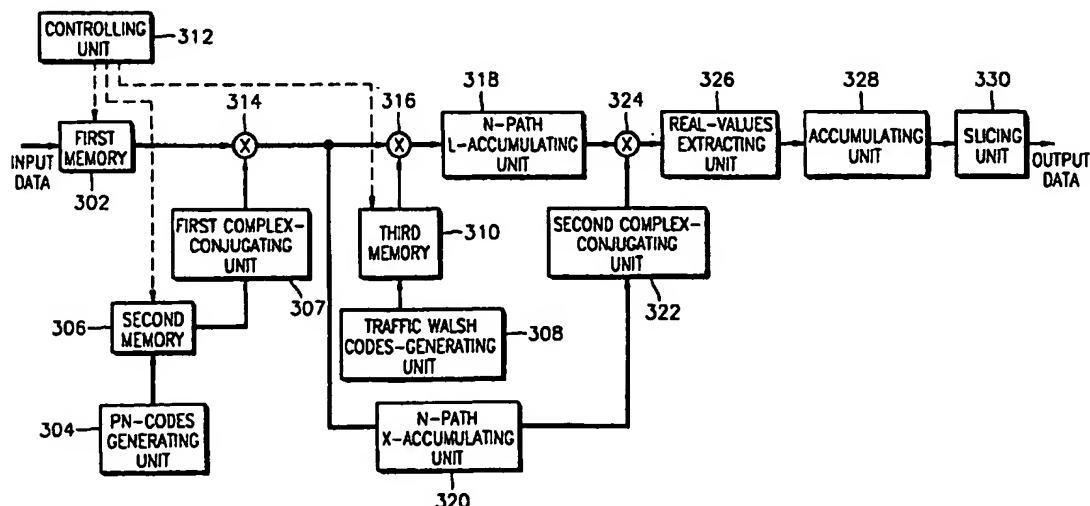
(74) Representative: **Ertl, Nicholas Justin et al**
Elkington and Fife,
Prospect House,
8 Pembroke Road
Sevenoaks, Kent TN13 1XR (GB)

(54) **A CDMA demodulating method and demodulator**

(57) The invention provides a code division multiple access (CDMA) demodulating method and demodulator in which the received signal is stored in a first memory (302), the PN-codes used are stored in a memory (306) after being generated by PN-codes generating unit (304) and the traffic Walsh codes used are stored in a

third memory (310) after being generated by traffic Walsh codes generating unit (308). The RAKE processing is carried out on the stored signal and codes reducing the number of necessary devices in the CDMA receiver, thereby reducing the complexity and power consumption of the demodulator.

FIG. 3





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 30 5881

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
1 E	US 6 173 008 B1 (LEE JI-WON) 9 January 2001 (2001-01-09) * figure 2 * * column 2, line 40 - line 44 * * column 3, line 42 - line 49 * * column 4, line 58 - line 67 * * column 5, line 7 - line 15 * & CN 1 198 049 A 4 November 1998 (1998-11-04) ---	1-8	H04B1/707
3 A	PRASAD - OJANPERA: "Wideband CDMA for third generation mobile communications" 1998, ARTECH HOUSE XP002233571 * page 288 - page 291 * * figure 10.7 * ---	1,2,4	
13 A,P	US 5 956 367 A (LEE JIN ICK ET AL) 21 September 1999 (1999-09-21) * figure 2 * * column 3, line 38 - line 49 * & KR 173 904 B 1 April 1999 (1999-04-01) ---	1,2,4	
14 A	EP 0 563 020 A (ERICSSON GE MOBILE COMMUNICAT) 29 September 1993 (1993-09-29) * figure 3 * * page 6, line 23 - line 30 * -----	1,2,4	
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 18 March 2003	Examiner Chave, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 5881

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

18-03-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6173008	B1	09-01-2001	KR	229042 B1	01-11-1999
			CN	1198049 A ,B	04-11-1998
			RU	2145772 C1	20-02-2000

US 5956367	A	21-09-1999	KR	173904 B1	01-04-1999

EP 0563020	A	29-09-1993	US	5237586 A	17-08-1993
			AU	3936793 A	21-10-1993
			BR	9305450 A	08-11-1994
			CA	2109947 A1	30-09-1993
			EP	0563020 A2	29-09-1993
			FI	935223 A	24-11-1993
			JP	3337217 B2	21-10-2002
			JP	6510411 T	17-11-1994
			MX	9301649 A1	01-12-1993
			NZ	251619 A	26-10-1995
			SG	43307 A1	17-10-1997
			WO	9319552 A1	30-09-1993
